



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,479	08/23/2001	Yoko Fujiwara	018656-241	8426

7590 04/27/2007
Platon N. Mandros
BURNS, DOANE, SWECKER & MATHIS, L.L.P.
P.O. Box 1404
Alexandria, VA 22313-1404

EXAMINER

BRIER, JEFFERY A

ART UNIT	PAPER NUMBER
----------	--------------

2628

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/934,479

Applicant(s)

FUJIWARA ET AL.

Examiner

Jeffery A. Brier

Art Unit

2628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9,11-34,37-40 and 42-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-9,11-34,37-40 and 42-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/20/2007 has been entered.

Response to Amendment

2. The amendment filed on 2/20/2007 has been entered.

Response to Arguments

3. Applicant's arguments, see pages 18-21, filed 2/20/2007, with respect to 35 USC 101 non-statutory rejections have been fully considered and are persuasive for claims 1, 6-9, 14-34, 37-40, and 42-47 because after amendments are made to these claims to overcome the following 35 USC 112 second paragraph rejection the claimed processing will be clearly forming a "single document block". The 35 USC 101 non-statutory rejection of claims 1, 6-9, 14-34, 37-40, and 42-47 has been withdrawn.

4. Applicant's arguments filed 2/20/2007 concerning the 35 USC 101 non-statutory rejection of claims 3-5 and 11-13 have been fully considered but they are not persuasive a tangible result of the claimed mathematical process in not manifested by

the claims because the results given by applicant at page 20 of the 2/20/2007 response covers all substantial uses of the claimed process, thus, these claims invoke preemption and are thus non-statutory.

5. Applicant's arguments filed 2/20/2007 concerning Kurosawa and the 102 rejection have been fully considered but they are not persuasive.

The arguments concerning claim 1 and 3 are not persuasive to overcome the rejection of claim 3 because as seen in figure 4A and described at column 4 lines 35-39 two paragraphs from the many paragraphs are extracted from the document and similarly the background is not extracted and this claim does not claim any special processing concerning the headline and the body text, thus, the inherent headline and text found in many documents is present in the range of documents present in the documents processed by Kurosawa's process.

The arguments concerning claims 1 and 5 are not persuasive to overcome the rejection of claim 5 because as seen in figure 4A and described at column 4 lines 35-39 two paragraphs from the many paragraphs are extracted from the document and similarly the background is not extracted and because the claimed column of text corresponds to a column of lines of English text which changes in the height of the column of lines of English is shown to be changed from figure 6A to 6C, see applicants specification at page 14 lines 7-16 for a discussion of columns of text and lines of text which is not concretely found in this claim, thus, Kurosawa's teaching of changing the height of the columns of lines of text teaches approximating a natural integer multiple of length of one column (one in figure 6C) of text since Kurosawa's teaching is with

reference to how the text is written in column direction and processing with regard to how the text is written rather than to columns or lines per se.

Specification

6. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
7. The disclosure is objected to because of the following informalities: page 19 lines 13-25 lack a reference to figure 12(B).

Appropriate correction is required.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 3-5 and 11-13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 3-5 and 11-13:

This application is directed to a useful, concrete, and tangible result of printing the layout image or producing a single document block, however, these claims are not. These claims are directed to abstract manipulations without providing for a practical application of the claimed process. Claims 3, 5, 11 and 13 all claim "laying out the

Art Unit: 2628

character code data...within the at least one reconstructed document block", however, this statement does not claim a practical application of the claimed functions because the term "laying out" is a very broad term. The CAFC clearly wrote in State Street at paragraph 4 *The question of whether a claim encompasses statutory subject matter should not focus on which of the four categories of subject matter a claim is directed to -- process, machine, manufacture, or composition of matter--but rather on the essential characteristics of the subject matter, in particular, its practical utility.* These claims are not limited to a practical application such as printing the newly created layout image on a medium by the use of the computer's printer or producing a "single document block".

Applicants' specification at page 4 lines 13-23 states:

This image processing device also may be provided with file generation means for generating an electronic file storing the character code data laid out by the layout means.

This image processing device also may be provided with a printer for printing the character code data laid out by the layout means on a recording substrate.

This image processing device also may be provided with a reader for reading image data to be processed by optically reading an image of a document.

Applicants' specification at page 20 lines 15 to page 21 line 2 states:

The image processing device also may have, in addition to the structure shown in FIG. 1, an interface for sending and receiving data between the image processing device and other information devices. In this way a generated document data 34 (refer to FIG. 11) may be transmitted to another information device such as a computer, printer or the like.

The image processing device also may have, in addition to the structure shown in FIG. 1, a printer engine for printing data on recording substrate such as cut paper, OHP transparencies, roll paper and the like. In this way a generated document data 34 may be printed on recording substrate.

Art Unit: 2628

Page 20 lines 4-8 states:

According to this example, a needed document can be collected in a single document even when it exists in a plurality of division within a document, thereby the document data can be easily obtained which are readable and more effectively adhered.

Thus, applicants specification describes practical applications for the invention by printing the layout image or producing a "single document block".

State Street Bank & Trust Co. v. Signature Financial Group Inc. (CA FC) 47

USPQ2d 1596, 1603 (7/23/1998). AT&T Corp. v. Excel Communications Inc. (CA FC)

50 USPQ2d 1447. On page 1603 first paragraph the CAFC wrote in State Street:

Under Benson, this may have been a sufficient indicium of nonstatutory subject matter. However, after Diehr and Alappat, the mere fact that a claimed invention involves inputting numbers, calculating numbers, outputting numbers, and storing numbers, in and of itself, would not render it nonstatutory subject matter, unless, of course, its operation does not produce a "useful, concrete and tangible result." Alappat, 33 F.3d at 1544, 31 USPQ2d at 1557. 7

On page 1603 paragraph labeled [4] the CAFC wrote:

[4] The question of whether a claim encompasses statutory subject matter should not focus on which of the four categories of subject matter a claim is directed to -- process, machine, manufacture, or composition of matter--but rather on the essential characteristics of the subject matter, in particular, its practical utility. Section 101 specifies that statutory subject matter must also satisfy the other "conditions and requirements" of Title 35, including novelty, nonobviousness, and adequacy of disclosure and notice. See In re Warmerdam, 33 F.3d 1354, 1359, 31 USPQ2d 1754, 1757-58 (Fed. Cir. 1994).

Claims 3-5 and 11-13:

These claims are additionally nonstatutory in view of MPEP 2106 at page 2100-9 last two paragraphs because they preempt all general applications of the computer program and its mathematical formula. The specification describes one of the means for performing the claimed functions is a computer program which inherently is mathematical functions which the claim inherently claim. These claims claim "to create a layout image" which applies the inherent mathematical functions to all substantial applications of the mathematical function. The term layout image is a very broad term. The claims are not limited to a substantial application such as printing the newly created layout image on a medium by the use of the computer's printer or producing a "single document block". Thus, applicants claims when read in light of the specification preempt all substantial uses of the computer program, the software, and the mathematical formula forming applicants invention. See applicants specification at page 21 lines 3-15.

Also a further discussion of preemption is found in the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility October 26, 2005.

http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf

See pages 14, 20, 23, 35, and 59 of the PDF version of the Interim Guidelines.

Pages 14 lines 7-17 states:

The courts have also held that a claim may not preempt ideas, laws of nature or natural phenomena. The concern over preemption was expressed as early as 1852. See *Le Roy v. Tatham*, 55 U.S. (14 How.) 156, 175 (1852) ("A principle, in the abstract, is a

Art Unit: 2628

fundamental truth; an original cause; a motive; these cannot be patented, as no one can claim in either of them an exclusive right.”); Funk Bros. Seed Co. v. Kalo Inoculant Co., 333 U.S. 127, 132, 76 USPQ 280, 282 (1948) (combination of six species of bacteria held to be nonstatutory subject matter). Accordingly, one may not patent every “substantial practical application” of an idea, law of nature or natural phenomena because such a patent “in practical effect be a patent on the [idea, law of nature or natural phenomena] itself.” Gottschalk v. Benson, 409 U.S. 63, 71-72, 175 USPQ 673, 676 (1972).

Page 20 lines 12-16 states:

If the claim is directed to a practical application of the § 101 judicial exception producing a result tied to the physical world that does not preempt the judicial exception, then the claim meets the statutory requirement of 35 U.S.C. § 101. If the examiner does not find such a practical application, the examiner has determined that the claim is nonstatutory.

Pages 23 states:

3. Determine Whether the Claimed Invention Preempts an Abstract Idea, Law of Nature, or Natural Phenomenon (§ 101 Judicial Exceptions)

Even when a claim applies a mathematical formula, for example, as part of a seemingly patentable process, the examiner must ensure that it does not in reality “seek[] patent protection for that formula in the abstract.” Diehr, 450 U.S. at 191, 209 USPQ at 10. “Phenomena of nature, though just discovered, mental processes, abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work.” Benson, 409 U.S. at 67, 175 USPQ at 675. One may not patent a process that comprises every “substantial practical application” of an abstract idea, because such a patent “in practical effect would be a patent on the [abstract idea] itself.” Benson, 409 U.S. at 71-72, 175 USPQ at 676; cf. Diehr, 450 U.S. at 187, 209 USPQ at 8 (stressing that the patent applicants in that case did “not seek to pre-empt the use of [an] equation,” but instead sought only to “foreclose from others the use of that equation in conjunction with all of the other steps in their claimed process”). “To hold otherwise would allow a competent draftsman to evade the recognized limitations on the type of subject matter eligible for patent protection.” Diehr, 450 U.S. at 192, 209 USPQ at 10. Thus, a claim that recites a computer that solely calculates a mathematical formula (see Benson) or a computer disk that solely stores a mathematical formula is not directed to the type of subject matter eligible for patent protection. If an examiner determines that the claimed invention preempts a § 101 judicial exception, the examiner must identify the abstraction, law of nature, or natural phenomenon and explain why the claim covers every substantial practical application thereof.

On pages 35 and 36 the guidelines states:

v. No Preemption Permitted

Even when a claim applies a mathematical formula, for example, as part of a seemingly patentable process, however, one must ensure that it does not in reality “seek[] patent protection for that formula in the abstract.” Diehr, 450 U.S. at 191, 209 USPQ at 10. One may not patent a process that comprises every “substantial practical application” of an abstract idea, because such a patent “in practical effect would be a patent on the [abstract idea] itself.” Benson, 409 U.S. at 71-72, 175 USPQ at 676; cf. Diehr, 450 U.S. at 187, 209 USPQ at 8 (stressing that the patent applicants in that case did “not seek to pre-empt the use of [an] equation,” but instead sought only to “foreclose from others the use of that equation in conjunction with all of the other steps in their claimed process”). Such limitations on process patents are important because without them, “a competent draftsman [could] evade the recognized limitations on the type of subject matter eligible for patent protection.” Diehr, 450 U.S. at 192, 209 USPQ at 10; accord Flook, 437 U.S. at 590, 198 USPQ at 197. Thus, a claim that recites a computer that solely calculates a mathematical formula (see Benson), a computer disk that solely stores a mathematical formula, or a electromagnetic carrier signal that carries solely a mathematical formula is not statutory.

vi. Claim Must Be Considered as a Whole

Only “when a claim containing [an abstract idea] implements or applies that [idea] in a structure or process which, when considered as a whole, is performing a function which the patent laws were designed to protect,” does “the claim satisf[y] the requirements of § 101.” Diehr, 450 U.S. at 192, 209 USPQ at 10.

Pages 58 and 59 states:

ANNEX 5 Mathematical Algorithms

Claims to processes that do nothing more than solve mathematical problems or manipulate abstract ideas or concepts are complex to analyze and are addressed herein.

If the “acts” of a claimed process manipulate only numbers, abstract concepts or ideas, or signals representing any of the foregoing, the acts are not being applied to appropriate subject matter. Benson, 409 U.S. at 71-72, 175 USPQ at 676. Thus, a process consisting solely of mathematical operations, i.e., converting one set of numbers into another set of numbers, does not manipulate appropriate subject matter and thus cannot constitute a statutory process.

In practical terms, claims define nonstatutory processes if they:

– consist solely of mathematical operations without some claimed practical application (i.e., executing a “mathematical algorithm”); or

Art Unit: 2628

– simply manipulate abstract ideas, e.g., a bid (Schrader, 22 F.3d at 293-94, 30 USPQ2d at 1458-59) or a bubble hierarchy (Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759), without some claimed practical application.

Cf. Alappat, 33 F.3d at 1543 n.19, 31 USPQ2d at 1556 n.19 in which the Federal Circuit recognized the confusion:

The Supreme Court has not been clear . . . as to whether such subject matter is excluded from the scope of § 101 because it represents laws of nature, natural phenomena, or abstract ideas. See Diehr, 450 U.S. at 186 (viewed mathematical algorithm as a law of nature); Gottschalk v. Benson, 409 U.S. 63, 71-72 (1972)

(treated mathematical algorithm as an “idea”). The Supreme Court also has not been clear as to exactly what kind of mathematical subject matter may not be patented. The Supreme Court has used, among others, the terms “mathematical algorithm,” “mathematical formula,” and “mathematical equation” to describe types of mathematical subject matter not entitled to patent protection standing alone. The Supreme Court has not set forth, however, any consistent or clear explanation of what it intended by such terms or how these terms are related, if at all.

Certain mathematical algorithms have been held to be nonstatutory because they represent a mathematical definition of a law of nature or a natural phenomenon. For example, a mathematical algorithm representing the formula $E = mc^2$ is a “law of nature” — it defines a “fundamental scientific truth” (i.e., the relationship between energy and mass). To comprehend how the law of nature relates to any object, one invariably has to perform certain steps (e.g., multiplying a number representing the mass of an object by the square of a number representing the speed of light). In such a case, a claimed process which consists solely of the steps that one must follow to solve the mathematical representation of $E = mc^2$ is indistinguishable from the law of nature and would “preempt” the law of nature. A patent cannot be granted on such a process.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 1, 6-9, 14-34, 37-40, and 42-47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claims 1, 9, 17, 27, 32, and 32 were amended with similar language which language renders these claims and their dependent claims unclear since, taking claim 1 as an example, these claims do not clearly claim extracting more than one document block, do not claim reconstructing the plural documents blocks into a single document block, and do not claim laying out the characters into the single document block.

Lines 2-9 of claim 1 claims to extract "extraction means for extracting at least one document block" and line 18 of claim 1 claims "wherein the extraction means extracts a plurality of documents blocks" which leads to confusion of the function of the extraction means. The extraction means at lines 2-9 should be positively limited to extracting a plurality of documents blocks rather than using the less positively limiting wherein clause.

The same analysis applies to the reconstruction means of claim 1 at lines 12-13 and at lines 19-20. The reconstruction means at lines 12-13 should be positively limited to reconstructing a plurality of documents blocks rather than using the less positively limiting wherein clause and should more clearly claim reconstructing the plurality of document blocks into a single document block.

Similarly the layout means of claim 1 at lines 14-16 lays out each of the plural document blocks into a corresponding reconstructed document block which conflicts

with the wherein clause at lines 19-20 of claim 1 since the wherein clause refers to a single document block reconstructed to the specific shape.

The specific shape claimed in the wherein clause does not have clear antecedent basis in the claim because lines 12-13 produces plural reconstructed blocks with each block having a shape based on the corresponding extracted document block since lines 12-13 do not clearly claim to form a single document block.

The wherein clauses of independent claims 1, 9, 17, 27, 32, and 32 do not clearly claim the type of block the plurality of document blocks are arranged into since the claimed "single block" is not the same as a "single document block". A single document block is a result the user would use while a "single block" is more abstract computer processing entity. Additionally the specification at page 20 line 5 refers to a "single document" rather than the claimed "single block".

12. A prior art rejection cannot be made of claims 1, 6-9, 14-34, 37-40, and 42-47 because the metes and bounds of the claims are not definite and because the specification does not clarify these claims. Thus, an indication of allowability would be premature. In re Steele, 305 F.2d 859, 134 USPQ 292 (CCPA 1962) (it is improper to rely on speculative assumptions regarding the meaning of a claim and then base a rejection under 35 U.S.C. 103 on these assumptions).

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14. Claims 3-5 and 11-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Kurosawa et al US Patent No. 6,466,954.

Claims 3-5 and 11-13 are

Claims 3 and 11: Claim 3 will be used as an example:

Kurosawa teaches a digital image processing device comprising:

extraction means for extracting at least one document block that is digital image data representing a portion of a scanned document (*Image input section 10.*), the scanned document having document images and a background (*See column 3 lines 11-22.*), the at least one document block includes document image data (*paragraphs, words, figures such as a photograph figure or a handwritten figure.*) and background image data (*unwanted paragraphs, words, and figures as well as character line space and space between blocks, see figures 4 and 11, and column 11 line 19 discusses background content.*), the document image data represents some of the document images on the scanned document, wherein all the document image data in the extracted at least one document block represents fewer document images than all the

document images that are present on the scanned document (*Column 11 lines 13-21 states: The above editing operation is not limited to the moving blocks. Each editing operation as aboved-mentioned in sections (1)-(7) is applied. This editing is executed not only on a binary image but also on a multivalued image or a color image.*

Furthermore, if a blank space is newly generated by editing block data in the document image, an image the same as the background content may be put on the blank in order to apply for the document image including the non-white background. Thus, Kurosawa teaches when applying steps (1)-(7) the document image data represents some of the document images on the scanned document by replacing a document image with the background image. As seen in figure 4A and described at column 4 lines 35-39 two paragraphs from the many paragraphs are extracted from the document and similarly the background is not extracted.),

generating means for generating character code data for character image data within the at least one document block (*character recognition section 18, column 4 line 65 to column 5 line 14.*);

reconstruction means for reconstructing the at least one document block in a specific shape based on the extracted at least one document block (*column 5 lines 48-63, column 11 lines 1-13, and steps (1)-(7).*); and

layout means for laying out the character code data corresponding to the character code generated by the generating means within the at least one reconstructed document block to create a layout image (*modification section 24*);

wherein the specific image includes a character image of a headline and a character image of body text corresponding to the headline (*This claim does not claim any special processing concerning the headline and the body text, thus, the inherent headline and text found in many documents is present in the range of documents present in the documents processed by Kurosawa's process. Therefore, Kurosawa meets this claim limitation.*).

The above analysis applies to program claim 11 since this claim claims the same functions found in claim 3.

Claims 4 and 12: Claim 4 will be used as an example:

Kurosawa teaches digital image processing device as claimed in claim 3, further comprising headline character arrangement means for arranging character code data corresponding to the character image of the headline at a specific position within the at least one reconstructed document block (*See steps (2) and (5) at column 6 line 10 to column 7 line 12 and at column 8 line 6 to column 9 line 22 which discuss arranging character code data to a position within the reconstructed block.*).

The above analysis applies to program claim 12 since this claim claims the same functions found in claim 4.

Claims 5 and 13: Claim 5 will be used as an example:

It should be noted that lines of 1-17 of claim 5 are identical to lines 1-17 of claim 3.

Kurosawa teaches a digital image processing device comprising:

extraction means for extracting at least one document block that is digital image data representing a portion of a scanned document (*Image input section 10.*), the scanned document having document images and a background (*See column 3 lines 11-22.*), the at least one document block includes document image data (*paragraphs, words, figures such as a photograph figure or a handwritten figure.*) and background image data (*unwanted paragraphs, words, and figures as well as character line space and space between blocks, see figures 4 and 11, and column 11 line 19 discusses background content.*), the document image data represents some of the document images on the scanned document, wherein all the document image data in the extracted at least one document block represents fewer document images than all the document images that are present on the scanned document (*Column 11 lines 13-21 states: The above editing operation is not limited to the moving blocks. Each editing operation as aboved-mentioned in sections (1)-(7) is applied. This editing is executed not only on a binary image but also on a multivalued image or a color image. Furthermore, if a blank space is newly generated by editing block data in the document image, an image the same as the background content may be put on the blank in order to apply for the document image including the non-white background. Thus, Kurosawa teaches when applying steps (1)-(7) the document image data represents some of the*

document images on the scanned document by replacing a document image with the background image. As seen in figure 4A and described at column 4 lines 35-39 two paragraphs from the many paragraphs are extracted from the document and similarly the background is not extracted.),

generating means for generating character code data for character image data within the at least one document block (*character recognition section 18, column 4 line 65 to column 5 line 14.*);

reconstruction means for reconstructing the at least one document block in a specific shape based on the extracted at least one document block (*column 5 lines 48-63, column 11 lines 1-13, and steps (1)-(7).*); and

layout means for laying out the character code data corresponding to the character code generated by the generating means within the at least one reconstructed document block to create a layout image (*modification section 24*);

wherein the reconstruction means adjusts a vertical or horizontal dimension of the at least one document block to a length approximating a natural integer multiple of a length of one column of multiple columns formed within the at least one document block (*See step (5) discussed at column 8 line 6 to column 9 line 22 which teaches the claimed column of text corresponds to a column of lines of English text which changes in the height of the column of lines of English is shown to be changed from figure 6A to 6C, see applicants specification at page 14 lines 7-16 for a discussion of columns of text and lines of text which is not concretely found in this claim, thus, Kurosawa's teaching of changing the height of the columns of lines of text teaches approximating a natural*

integer multiple of length of one column (one in figure 6C) of text since Kurosawa's teaching is with reference to how the text is written in column direction and processing with regard to how the text is written rather than to columns or lines per se.).

The above analysis applies to program claim 13 since this claim claims the same functions found in claim 5.

Conclusion


15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sakai Yasumasa, JP No. 11-184966, teaches a system that scans a pretreated (premarked) document and performs character recognition within the marker designated area.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffery A Brier whose telephone number is (571) 272-7656. The examiner can normally be reached on M-F from 7:30 to 4:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi, can be reached at (571) 272-7664. The fax phone Number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 2628

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jeffery A Brier
Primary Examiner
Division 2628